

YASHNIK, M.M.

Railroads and economic councils of the Ukraine in the
fight to reduce transportation costs. Zhel. dor. transp. 41
no.1:35-40 Ja '59. (MIRA 12:1)

1. Nachal'nik otdela transporta i svyazi Gosplana USSR.
(Ukraine--Railroads--Management)

YASHNIK, M.M. (Kiyev)

Integrated transportation system of the Ukraine. Zhel.dor.-
transp. 44 no.11:30-33 N '62. (MIRA 15:11)

1. Chlen Gosplana UkrSSR. (Ukraine—Transportation)

VASHNIKOV, D.I.

TOKAR', I.K.; CHAMIN, I.A.; Primali uchastiye: BOYKO, M.V.; CHUB, G.F;
GAMERSHTEYN, V.A.; YASHNIKOV, D.I.; FILONOV, V.A.; TROSHCHENKO,
N.A.; SAMOYLOV, I.D.; ZAYTSEV, V.V.; KOLOMATSKIY, V.D.

Efficient lubrication for the rolling of thin sheet iron.
Metallurg 6 no.8:22-24 Ag '61. (MIRA 14:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Tokar', Chamin, Zaytsev, Kolomatskiy). 2. Zavod "Zaporozhstal'" (for Boyko, Chub, Gamershteyn, Yashnikov, Filonov, Troshchenko, Samoylov). (Metalworking lubricants) (Sheet iron)

YASHNIKOV, D.I., inzh.; TILIK, V.T., inzh.; TROSHCHENKOV, N.A., inzh.;
Prinimali uchastiye: SAMOYLOV, I.D., inzh.; VERBITSKIY, A.I.,
inzh.; KRASHNIKOV, A.S., inzh.; BURBELO, V.G., inzh.; KSENZUK,
F.A., inzh.; MIRKINA, R.Ye., inzh.; GOL'DSHTEYN, F., inzh.;
BOZHKO, S.A., inzh.

Reducing the consumption of tin in improving the microgeometry
of sheet iron surfaces. Stal' 21 no.9:862-864 S '61. (MIRA 14:9)

1. Zavod "Zaporozhstal'".
(Tinning) (Surfaces (Technology))

YASHNIKOV, D.I., inzh.; MYTSIK, P.A.

Improving the technology of continuous hot dip tinning of strip steel on machine units of the "Zaporozhstal'" plant. Sbor. trud. (MIRA 15:11)
TSNIICHM no.28:89-96 '62.

1. Zavod "Zaporozhstal'" (for Yashnikov). 2. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Mytsik).
(Zaporozhye—Tinning)

MYTSIK, P.A., inzh.; YASHNIKOV, D.I., inzh.

Introducing efficient types of large-size packaging for coiled
and flat sheet steel in the U.S.S.R. Sbor. trud. TSNIICHM
no.34:82-87 '63. (MIRA 17:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii (for Mytsik). 2. Zavod "Zaporozhstal'" (for Yashnikov).

GAMERSHTEYN, V.A., inzh.; LITVINENKO, V.G., inzh.; Prinimali uchastiye:
FILONOV, V.A., inzh.; KSENDZUK, F.A., inzh.; SAMOYLOV, I.D.,
inzh.; VERBITSKIY, A.I., inzh.; YASHNIKOV, D.I., inzh.;
LEYCHENKO, M.A., kand. tekhn. nauk; CHAMIN, I.K., tekhnik;
TOKAR', P.K., inzh.; ZAYTSEV, P.P., inzh.

Mastering the production of cold-rolled sheets. Met. 1 gornorud.
prom. no.6:72-74 N-D '62. (MIRA 17:8)

1. Zavod "Zaporozhstal'" (for Gamershteyn, Litvinenko, Filonov,
Ksendzuk, Samoylov, Verbitskiy, Yashnikov). 2. Tsentral'nyy
nauchno-issledovatel'skiy institut chernoy metallurgii im.
Bardina (for Leychenko, Chamin, Tokar', Zaytsev).

CHERNYAVSKIY, A., YASHNOV, A.

What kind of daily assignment organization? Mast.ogl. 9 no.5:18
My '60. (MIRA 13:7)

1. Glavnyy inzhener shakhty No.2 "Cherkasskaya-Severnaya" Lugans-
kogo sovarkhoza (for Chernyavskiy). 2. Pomoshchnik nachal'nika
uchastka shakhty imeni Kostenko Karagandinskogo sovarkhoza
(for Yashnov).

(Coal mines and mining) (Industrial management)

BOKIN, M.N., dotsent, kand.tekhn.nauk; YASHNOV, B.D., prof., doktor
tekhn.nauk, retsenzent; AL'TFEL'D, G.I., dotsent, retsenzent;
YELIKIN, V.I., dotsent, retsenzent; OZNOBISHIN, N.V., dotsent,
retsenzent; DVORAKOVSKAYA, A.A., tekhn.red.

[Fundamentals of interchangeability in the manufacture of
machinery; textbook] Osnovy vzaimozameniaemosti v mashino-
stroenii; uchebnoe posobie. Leningrad, Leningr.voenno-
mekhanicheskii in-t, 1959. 317 p.

(MIRA 14:4)

(Interchangeable mechanisms)

YASHNOV, P. I.

A report on the elaboration of astronomic observations of the expedition to Mongolia in 1930. Leningrad, 1934. 22 p. (Akademiia nauk. Mongol'skaia komissia. Trudy. no 12)

YASHNEV, V. A.

Small practical guide to hydrobiology Moskva, Sovetskaya nauka,
1952 (54-21372) 265 p.

QH90.I5

YASHNOV, V.A.

Coelenterata of the Kamchatka peninsular waters of the Pacific Ocean.
Issl.dal'nevost. mor.SSSR 3:95-98 '52. (MLRA 6:7)
(Pacific Ocean--Coelenterata) (Coelenterata--Pacific Ocean)

YASHNOV, V. A.

Morphology, systematics, and occurrence of *Calanus finmarchicus* L.
Zool.zhur. 34 no.6:1210-1223 N-D '55. (MLBA 9:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Copepoda)

YASHNOV, V.A.

Method of calculating populations of organisms inhabiting macro-
phyte growths in the sea. Trudy Karad. biol. sta. no.14:122-126
'57. (MLBA 10:8)

(Marine fauna--Research)

YASHNOV, V.A.

Comparative morphology of the species of *Calanus finmarchicus* s.l.
Zool. zhur. 36 no.2:191-198 F '57. (MIRA 10:6)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universi-
teta im. M.V. Lomonosova.
(Copepoda)

YASHNOV, V.A.

Evolution of the species of *Calanus finmarchicus* S.L. [with summary
in English]. Zool. zhur. 37 no. 6:838-844 Je '58. (MIRA 11:7)

1. Moskovskiy gosudarstvennyy universitet.
(Copepoda)

YASHNOV, V.A.

A new type of volumenometer for fast and accurate determination of plankton volume during an expedition. Zool. zhur. 38 no.11:1741-1744 N '59 (MIRA 13:3)

1. Moscow State University.
(Plankton research) (Volumetric apparatus)

~~IASNOV, V.A. [Yashnov, V.A.]~~

A new model of a volumeter for quick and precise determination of
the volume of plankton in the course of expeditions. *Analele biol*
14 no.2:179-182 Ap-Je '60. (EEAI 9:11)
(VOLUMETRIC APPARATUS)
(PLANKTON)

YASHNOV, V.A.

Plankton and the dynamics of waters in the Atlantic Ocean. Biol.
MOIP. Otd. biol. 65 no. 4:143-144 J1-Ag '60. (MIRA 13:10)
(ATLANTIC OCEAN--ZOOPLANKTON) (OCEAN CURRENTS)

YASHNOV, V.A.

High-speed plankton net. Zool. zhur. 40 no. 1:122-128 Ja '61.
(MIRA 14:2)

1. State University of Moscow.
(Plankton Research)

YASHNOV, V.A.

Water masses and plankton. Report No.1: Calanus finmarchicus s.l.
species as indicators of definite water masses. Zool. zhur. 40
no.9:1314-1334 S '61. (MIRA 14:8)

1. State University of Moscow.
(Atlantic Ocean--Copepoda) (Oceanographic research)

YASHNOV, V.A.

Plankton in the tropical part of the Atlantic Ocean. Trudy MGI
25:195-207 '62. (MIRA 15:2)

(Atlantic Ocean--Zooplankton)

YASHNOV, V.A.

Water masses and plankton. Part 2: *Calanus glacialis* and *Calanus pacificus* as indicators of certain waters masses of the seas of the Pacific Ocean. Zool. zhur. 42 no.7:1005-1021 '63.
(MIRA 17:2)

1. State University of Moscow.

YASHNOV, V.A.

Water masses and plankton. 3. Halosphaera viridis as an indicator of Mediterranean waters in the North Atlantic. Okeanologiya 5 no.5:884-890 '65.

(MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

L 44378-66 EWT(1) GW

ACC NR: AP6020987 (N) SOURCE CODE: UR/0213/66/006/003/0493/0503

AUTHOR: Yashnov, V. A. 7B

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

TITLE: Water massed and plankton. Part 4. Calanus finmarchicus and dimophyes arctica as indicators for Atlantic Ocean waters in the Polar Basin

SOURCE; Okeanologiya, v. 6, no. 3, 1966, 493-503

TOPIC TAGS: oceanography, ocean property, ocean current, plankton

ABSTRACT: The center of distribution of the boreal species C. finmarchicus is in the subpolar Atlantic water mass. This species penetrates the Polar Basin with the current from the Greenland Sea. The quantity of C. finmarchicus first slowly and then rapidly decreases and only an insignificant portion of the populations is carried out to the central region of the Polar Basin. Their extinction is caused by conditions unfavorable to them. Thus, the Polar Basin can be regarded as the expatriation area

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UDC: 591.524.12(26)

L 44378-66

ACC NR: AP6020987

of *C. finmarchicus*. This species is never found beyond the cyclonic gyration oven of the Atlantic Ocean in the Polar Basin. The southern region of Barents Sea and Baffin Bay can be considered as immigration areas of *C. finmarchicus* where the species is maintained only by the continuous migration from its spawning area. *C. finmarchicus* penetrates the Kara Sea from the Barents Sea through the Kara Gates and with the current surrounding Novaya Zemlya in the north. In the White Sea, only *C. glacialis* occurs. The center of distribution of *D. arctica* is in the Atlantic Ocean. This species is carried out with the ocean currents from the Atlantic Ocean into the Greenland and Barents Seas. It penetrates into the Polar Basin with the current from the Greenland Sea. A map shows all the appearances of this species in the Polar Basin and Kara Sea and some appearances in other Arctic seas. *C. finmarchicus* and *D. arctica* can serve as reliable indicators of penetrations of Atlantic Ocean waters into the Polar Basin and (for *C. finmarchicus*) of Barents Sea waters into the Kara Sea and White Sea. Distinct branches of currents can be determined by the presence of these species. Orig. art. has: 4 figures and 4 tables. [Based on author's abstract] [NT]

SUB CODE: 08/ SUBM DATE: 08Feb66/ ORIG REF: 019/ OTH REF: 010/

hs

Card 2/2

YASHNOV, V.A.

"The group *Cyclops rubens* (syn. *Cyclops strenuus*). Revision of the genus *Cyclops* s. str. (O.F. Muller, 1770) (Crustacea, Copepoda)" [in French] by K. Lindberg. Reviewed by V.A. Iashnov. Zool. zhur. 41 no. 1: 151-152 Ja '62. (MIRA 15:4)
(Cyclops) (Lindberg, K.)

L 1108-66 EWT(m)/EWT(1)/EWP(m)/EWA(d)/T/FSC(k) GS

ACCESSION NR: AT5016893

UR/0000/64/000/000/0249/0278

AUTHOR: Alad'yev, I. T.; Yashnov, V. I.

TITLE: Effect of wettability on critical boiling

SOURCE: Konvektivnaya teploperedacha v dvukhfaznom i odnofaznom potokakh (Convective heat transfer in two-phase and single-phase flows). Moscow, Izd-vo Energiya, 1964, 249-278

TOPIC TAGS: critical flow, fluid flow, boiling

ABSTRACT: Critical thermal flow during boiling of water in a large volume at atmospheric pressure is experimentally studied in relationship to the method used for cleaning the heating surface, thermal flow and time of preliminary boiling, salt content of the boiling water, roughness and chemical etching, high temperature annealing and grease films, and also the material of the heating surface. It is shown that all these factors affect the critical boiling process for one fundamental reason--they all change the wettability of the surface which heats the boiling water. The contact angles for wetting by water are measured for seven metals with various surface states. It is shown that the wettability is static, which is apparently the

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L 1108-66

ACCESSION NR: AT5016893

reason for the static nature of the separation diameter and separation frequency of the bubbles. A relationship is found between the critical thermal flow and the wetting angle: the critical flow decreases as the contact angle increases. The relative change in critical flow as a function of the contact angle (in the range from 0 to 82°) is given by the linear expression:

$$\frac{q_{cr\theta_i}}{q_{cr\theta=0^\circ}} = 1 - 0.0078\theta^\circ.$$

It is shown that this relationship should be true for boiling of any liquids at any pressures both in a large volume and for the case of circulation of underheated liquids in channels. Orig. art. has: 16 figures, 2 tables, 5 formulas.

ASSOCIATION: none

SUBMITTED: 17Nov64

ENCL: 00

SUB CODE: ME

NO REF SOV: 037

OTHER: 014

Card ^{KC} 2/2

43198

S/855/62/000/000/004/005
E194/E435

26.5400

AUTHOR: Yashnov, V.I.

TITLE: - The influence of certain surface properties on critical boiling

SOURCE: Teploperedacha. Energ. inst. AN SSSR. Ed. by M.A.Mikheyev. Moscow, Izd-vo AN SSSR, 1962, 116-123

TEXT: Previous workers have observed that if a heating surface is conditioned by boiling water on it for a period the critical heat transfer rate which it can carry may be much greater than with a clean fresh surface. The present work was undertaken to investigate the effect further. Tests were made with stainless steel 1X18119T (1Kh18N9T) tube heated by alternating current using the following classes of finish: rough (80 to 40 μ); smooth (3.2 to 1.6 μ); polished (0.2 μ). The smooth tubes in the initial clean condition display critical boiling at a heat transfer rate of about 650×10^3 kcal/m² hour and on conditioning the tubes by boiling water with them at a rate of 200×10^3 kcal/m² hour, the critical boiling rate was raised to about 1150×10^3 kcal/m² hour. The rate of stabilization could be increased by raising the heat transfer rate during the

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S/855/62/000/000/004/005
E194/E435

The influence of certain ...

conditioning period. The conditioned surface remained stable when the tubes were exposed to air. The conditioning effect was very much less marked on the rough tubes which from the start had a critical heat transfer rate of $900 \text{ to } 1150 \times 10^3 \text{ kcal/m}^2 \text{ hour}$. With polished tubes the initial rate was $600 \times 10^3 \text{ kcal/m}^2 \text{ hour}$ and here again the conditioning effect was less than on smooth tubes, the critical rate being increased by 30% after boiling. There are 4 figures and 1 table.

Card 2/2

SIMONOVA, A., normirovshchitsa,; YASHNOVA, I., tekhnolog,; ZELEPUKHINA, G.

Eight hundred hikers from Sormovo. Rabotnitsa 36 no. 6:14-15 Je '58.

1.3-y sudokorpusnyy tsakh zavoda "Krasnoye Sormovo," g. Gor'kiy.
(Outdoor life)

1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX	
YASHNOVA, N. V.		15	
<p>Nitrification in podzolized soils. N. V. YASHNOVA. <i>Trans. Sci. Inst. Fertilizers</i> (Moscow) No. 76, 4-62 (1930).—Even with a very small quantity of NH_3 in soil, nitrification in podzols takes place. The absorbed NH_3 is available for nitrification. The presence of appreciable quantities of sol. org. matter hinders nitrification. With an increase in aeration and dissolved NH_3, there is an increase in nitrification. When NH_3 accumulates and nitrification is hindered there is a high multiplication of <i>B. mycoides</i>. At times the nitrification of NH_3 is hindered by the lack of phosphates. The Waksman method for distinguishing the nitrification capacity of a soil was found unsuitable. Addns. of $CaCO_3$ for the neutralization of the acid formed are not entirely satisfactory because of local action. Incubation in the thermostat increases the water-sol. org. matter, which disturbs the natural conditions. With a high content of sol. org. matter there is the possibility of denitrification.</p> <p style="text-align: right;">J. S. Jovan</p>			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION			
1ST AND 2ND ORDERS		1ST AND 2ND ORDERS	

IZRAIL'SKIY, V.P., prof.; doktor biolog.nauk; SHUSTOVA, L.N., kand.med.
nauk; GOHLENKO, M.V., doktor biolog.nauk; MURAV'YEV, V.P.;
BEREZOVA, Ye.F., doktor biolog.nauk; SUDAKOVA, L.V., mikrobiolog;
GRUSHEVOY, S.Ye., doktor sel'skokhoz.nauk; NEMLIYENKO, F.Ye.,
doktor biolog.nauk; BEL'TYUKOVA, K.I., doktor biolog.nauk; STARYGINA,
L.P., kand.biolog.nauk; PERSHINA, Z.G., kand.biolog.nauk; ART'YEM'YEVA,
Z.S., mikrobiolog; NOVIKOVA, N.S., kand.biolog.nauk; OSNITSKAYA, Ye.A.,
fitopatolog; YASHNOVA, N.Y., fitopatolog-mikrobiolog; MIKZABEK'YAN,
R.O., kand.biolog.nauk; TETUYUREVA, I.V., red.; PEVZNER, V.I., tekhn.red.

[Bacterial diseases of plants] Bakterial'nye bolezni rastenii. Izd.2.,
perer. i dop. Moskva, Gos.izd-vo selkhoz.lit-ry, 1960. 467 p.
(MIRA 13:7)

1. Chlen-korrespondent Ukrainskoy AN (for Murav'yev).
(Bacteria, Phytopathogenic) (Plant diseases)

YACHNOVA, N.V., bakteriolog

Agent producing fasciation in plants. Zashch. rast. ot vrei i bel.
9 no.12:42-43 '64. (MIRA 18:4)

1. Tsentral'naya karantinnaya laboratoriya Ministerstva
sel'skogo khozyaystva SSSR.

PRIKHOT'KO, G.F.; YASHOVSKAYA, Z.M.

Frequency of thick convection clouds over the Ukraine. Trudy UkrNIGMI
no.47:65-68 '65. (MIRA 18:7)

YASHOVSKIY, I. V.
USSR/Cultivable Plants - Grains.

M-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10031 K.

Author : Lebedev, V.N., Savitskiy, K.A., Yashovskiy, I.V.

Inst : -

Title : Grains Crops.

Orig Pub : Kiy, Derzhavil'gospvishav URSS, 1956, 299 pp., illus, 3 text
50 kop.

Abstract : No abstract.

Card 1/1

YUKHIMCHUK, F.P.[Iukhymchuk, F.P.], otv. red.; VISHINSKIY, O.M.
[Vyshyns'kyi, O.M.], red.; GOLOMBA, R.A.[Holomba, R.A.]
red.; DMITRENKO, P.O.[Dmytrenko, P.O.], doktor sel'khoz.
nauk, red.; IL'YASHENKO, M.G.[Illiashenko, M.H.], red.;
KOLOBOV, O.M., red.; KUKSIN, M.V., red.; LAZURSKIY, O.V.
[Lazurs'kyi, O.V.], kand. sel'khoz. nauk, red.; POPOV,
F.A., red.; SAMBUR, G.M.[Sambur, H.M.], red.; SAMTSEVICH,
S.A.[Samtsevyeh, S.A.], red.; FEDOROVA, N.A., kand. sel'khoz.
nauk. red.; YASHOVSKIY, I.V.[Iashovs'kyi, I.V.], red.

[Nutrition and fertilizers of farm crops] Zhyvlennia ta
udobrennia sil's'kohospodars'kykh kul'tur. Kiev, Urozhai,
1964. 137 p. (MIRA 17:10)

1. Ukrain's'kyi naukovo-doslidnyy instytut zemlerobstva.

YASHOVSKIY, I. V.

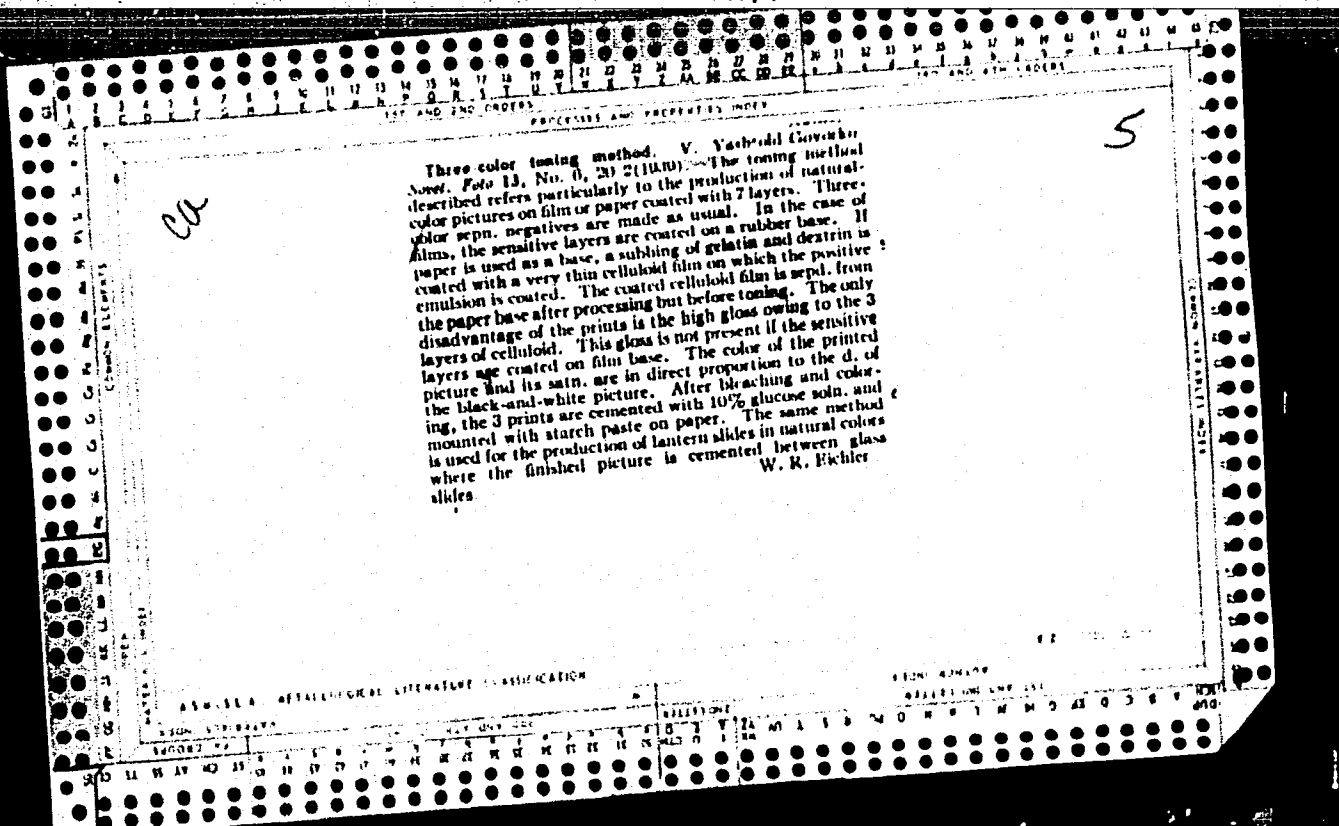
YASHOVSKIY, I. V.: "The agrobiological principles for selection of
foxtail millet (*Setaria italica* P. B. ssp. *maxima* Alf.)." Min
Culture USSR. Ukrainian Order of Labor Red Banner Agricultural
Academy. Kiev, 1956
(Dissertation for the Degree of Candidate in Agricultural Sciences)

So: Knizhnava Letopis', No 17, 1956

100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1

New binding of bromide and chlorobromide photographic papers. V. A. Yashin-Govorko. *Sov. Foto 1930*, No. 3, 31-5; *Khim. Referat. Zh.* 1930, No. 1, 123; *C. A.* 34, 5625. — This arabinide 0.1 g., K_2CO_3 10 g., and H_2O 100 cc. are mixed for the prepn. of the brown-

and H_2O 100 cc. are mixed for the printing solution. The prints are preliminarily completely toned in a solution of $\text{K}_3\text{Fe}(\text{CN})_6$ with KOH for 1.5-2 min., bleached in a solution of the yellow color disappear, and washed until all traces of the yellow color disappear, and washed until all traces of the yellow color disappear. The toning process is completed in 30-50 sec. Ten 9×12 -cm. prints can be treated in 100 cc. of the toning solution. The prints are washed for 10-15 min. in running water after toning. Absence of disintegrable odor is the advantage of this over the Na_2S method. Two methods for (1.) blue toning are given. In the 1st method mix $\text{K}_3\text{Fe}(\text{CN})_6$, 0.4 g., ferric NH_4 citrate, 0.44 g. and tartaric acid, 1.4 g. in 100 cc. of H_2O at $18-20^\circ$. Soak the prints 3-6 min. and before toning. The process is completed in 3-6 min. and 10-15 min. is required for washing. Twenty 9×12 -cm. prints can be toned in 100 cc. of the solution. The prints must be somewhat overexposed. According to the 2nd method for $\text{K}_3\text{Fe}(\text{CN})_6$, 0.2 g., K citrate 0.2 g., 10% HCl 0.5 cc. (or H_2BO_3 0.5 g.), K alum 0.5 g. and Fe alum 0.25 g. are dissolved in 100 cc. of H_2O at $10-20^\circ$. The toning process is completed in 2-3 min. (in 10-12 min. in case of H_2BO_3). Approx. 10-12 prints can be toned in 100 cc. of the solution. For (1-soln.) red-violet toning (4-5 in case of H_2BO_3). For (1-soln.) red-violet toning dissolve K oxalate 5 g., $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ 0.5 g., $\text{K}_3\text{Fe}(\text{CN})_6$ 0.4 g. and K_2CO_3 0.4 g. in 100 cc. of H_2O . The toning is completed in 7-15 min. Fifteen 9×12 -cm. prints can be toned in 100 cc. of the solution and 15-20 min. is required. The prints must be greatly overexposed. W. R. Henn



YASHTOLD, GOVERNO

012.720
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FOTOSLOVAR' (DICTIONARY OF PHOTOGRAPHY) MOSKVA, GOSKINOIZDAT.
1939. 79 P. PHOTOSTAT COPY.

1ST AND 2ND DEGREES

PROCESSES AND PROPERTIES INDEX

CA

Toning of photographic papers V. A. Yashinskiy-Che-
rko and Z. Chikhonina. *Kinofotokhimiya*. From. 1940.
No. 1, 31 8. -A review of the different known direct and
indirect toning methods. Certain advantages and dis-
advantages of the different methods are pointed out.
Numerous tables illustrate the results of the toning
methods with respect to stability of the toning
sols., time of treatment and washing, and quality and
stability of the toned images. W. R. Eichler

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ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND DEGREES

1ST AND 2ND DEGREES

YASHTOLD-GOVORKO, Vsevolod Aleksandrovich

Technology

Processing of photographic materials, Moskva, Goskinoizdat, 1950.

2

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

YASHINOLD-GOVORNO, VOYVODIN ALEXANDER VICH

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Obrabotka Fotomaterialov (Photo Developing) Moskva, Goskinoizdat, 1950.
158 P. Illus., Diagr., Tables.
(Biblioteka Fotolyubitelya)

AVS

YASHTOLD-Govorke, V. A.

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749.6
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1951

Rukovodstvo po fotografii (Textbook of photography) Izd. 3. Moskva,
Goskinoizdat, 1951.

454 p. illus., diagrs.

AB520184.

YAS 1-TOLD-GOVORKO, V.A.

YASHTOLD-GOVORKO, Vsevolod Aleksandrovich; TELESHEV, A.N., redaktor;
~~TELESHEV, V.I.~~, V.I., tekhnicheskiiy redaktor

[Photographic supplies; their characteristics and use] Fotomaterialy;
ikh kharakteristika i primeneniye. Moskva, Gos. izd-vo "Iskusstvo,"
1954. 134 p. (MIRA 8:4)

(Photography--Apparatus and supplies)

MARKHILEVICH, K.I.; YASHTOLD-GOVORKO, V.A.; IOFIS, Ye.A., kandidat tekhnicheskikh nauk, redaktor; ~~TELISEV, A.N.~~, redaktor; MATISSEN, Z.M., tekhnicheskii redaktor

[Photographic chemistry] Fotograficheskaya khimiya. Pod red. E.A. Iofisa. Moskva, Gos. izd-vo "Iskusstvo, 1956. 174 p. (Biblioteka fotoliubitelia, no.10) (MIRA 10:2)
(Photographic chemistry)

YASHTOLD-GOVORKO, V.A.

"A brief photographic dictionary." Reviewed by V.A. Iashtold-Govorko. Zhur.nauch.i prikl.fot.i kin. 2 no.4:317-318 J1-Ag '57.
(MLRA 10:7)

(Photography--Dictionaries)

YASHTOLD-GOVORKO, V. A.

YASHTOLD-GOVORKO, V. A.

Reasons for graininess. Sov. foto 17 no.12:33-38 D '57. (MIRA 11:1)
(Photography—Developing and developers)

YASHTOLD-GOVORKO, V.A.

"Introduction to photographic technique" [in German] by T. Weyres,
E. Paulsen. Reviewed by V.A. Iashtold-Govorko). Zhur. nauch i prikl.
fot. 1 kin. 3 no.1:80 Ja-F '58. (MIRA 11:2)

(Photography)

(Weyres, T.)

(Paulsen, E.)

YASHTOLD-GOVORKO, V.A., red.; ZHERDETSKAYA, N.N., red.; MALEK, Z.N., tekhn.
red.

[Technique of the photograph; a collection of translated articles]
Tekhnika fotos"emki; sbornik perevodnykh statei. Moskva, Gos. izd-vo
"Iskusstvo," 1958. 118 p. (MIRA 11:7)

(Photography)

BUNIMOVICH, David Zakharovich; YASHTOL'D-GOVORKO, V.A., spets.red.;
KALASHNIKOV, V.P., tekhn.red.

[Young amateur photographer] IUnyi fotoliubitel'. Moskva,
Izd-vo "Mosk.pravda," 1959. 289 p. (MIRA 12:12)
(Photography--Handbooks, manuals, etc.)

YASHFOLD-GOVORKO, V.

Let us talk about tone reproduction. Sov. foto 19 no.12:32-36 D '59.

(MIRA 13:3)

(Photographic sensitometry)

YASHTOLD-GOVORKO, Vsevolod Aleksandrovich; TELESHEV, A.N., red.

[Taking and processing of photographs; photographing,
formulas, terminology, recipes, and chemicals] Fotos"emka
i obrabotka; s"emka, formuly, terminy, retsepty, khimikaty.
Moskva, Iskusstvo, 1964. 443 p. (MIRA 17:4)

YASHTOV, V.A.

Vertical distribution of the zooplankton mass in the tropical region of the Atlantic Ocean. Dokl. AN SSSR 136 no. 3:705-708 Ja '61. (MIRA 14:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Predstavleno akademikom I.I. Shmal'gauzenom. (Atlantic Ocean—Zooplankton)

YASHUGIN, Ya.A. (MIRA)

Monograms for plotting logarithmic frequency response curves of
second-order links. Avtom. i telem. 25 no.7:1140-1143 71 '67.

(MIRA 17112)

~~Y~~^HASUGINA, E.A.

SUBJECT USSR / PHYSICS YASHOGINA / CARD 1 / 2 PA - 1759
 AUTHOR SIMANSKAJA, N.S., JASUGINA, E.A.
 TITLE Determination of the Half-Life of Ac^{227} by the calorimetric
 Method.
 PERIODICAL Atomnaja Energija, 1, fasc.5, 133-133 (1956)
 Issued: 1 / 1957

As the authors had a weighable quantity of pure Ac^{227} available, they attempted to measure its half-life calorimetrically. The calorimetric measuring of half-life of long-lived isotopes is known to be reduced to the determination of the heat generated in the calorimeter by a known quantity of the radioactive isotope. The formula for the computation of the half-life is written down. The preparation used here for investigations was first chemically purified.

The preparation ($\text{Ac}_2^{227}\text{O}_3$) had a weight of $2,01 \pm 0,02$ milligrams. The impurities in the preparation are quantitatively mentioned. The preparation contained no radioactive impurities. On the occasion of the purification of the preparation also its isotope, RdAc , a daughter-product of Ac^{227} , was deposited together with Th. Therefore all basic calorimetric measurements were carried out after 6 months, i.e. after establishment of radioactive equilibrium in the preparation. Measurements were carried out in a double static calorimeter, which is being used in the Radium Institute of the Academy of Science of the USSR for the calorimetric measuring of radioactive substances. The thermal efficiency of the preparation was 23,7 milliwatts ($\pm 0,5\%$). When determining its activity

Atomnaja Energija, 1, fasc.5, 133-133 (1956) CARD 2 / 2

PA - 1759

it was assumed that the entire decay energy ξ of the preparation in equilibrium amounts to $\xi = 33,69 \text{ MeV}$ / act of decay of the Ac^{227} . This value of ξ was computed on the basis of the last experimental data on the energies and yields of the radioactive radiations of the actinium series. The activity of the source, in consideration of the necessary corrections, amounted to $120,1 \pm 1,2$ millicurie. By means of the aforementioned formula the value $21,2 \pm 0,8$ years was obtained for the half-life of Ac^{227} . The value obtained agrees within the limits of errors with previous measurements carried out by F.CURIE, G.BOUISSIERES, Cahier phys. 26, 1 (1944), and I. HOLLANDER and R.LEININGER, Phys.Rev. 80, 915 (1950).

By the way, the spectral analysis of the source carried out by the authors was not complete and can therefore not warrant the complete lack of unimportant admixtures also of other elements than those mentioned by the authors. In particular, contamination by arsenic, sulphur, and some other elements was not controlled, although such admixtures are improbable. If such elements in spite of all exist, the half-life measured by the authors is somewhat too high.

INSTITUTION:

1. ⁹⁰Th α -PARTIC DETERMINATION OF THE HALF-
LIFE OF ^{210}Po S. Shimadzu and K. Yashima
J. Nuclear Energy B, No. 1, 161-2 (1967)
The half-life of ^{210}Po was found to be 21.4 \pm 0.4 years by
the electrostatic method. (M.H.R.)

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STARIK, I.Ye.; STARIK, A.S.; YASHUGINA, Ye.A.; SMIRNOVA, Ye.A.

Quantitative separation of actinium from radioactinium and
actinium.X. Trudy Radiy.inst.AN SSSR. 8:170-176 '58.
(MIRA 12:2)

(Actinium--Analysis)

L 43705-66 EWT(d)/EWP(k)/EWP(h)/EWP(l)/EWP(v) BC

ACC NR: AP6023662

SOURCE CODE: UR/0103/66/000/004/0048/0058

AUTHOR: Sigalov, G. G. (Minsk); Yashugin, Ye. A. (Minsk)

50
B

ORG: none

TITLE: Evaluation of the conditions governing follow-up failure in nonlinear automatic control systems

SOURCE: Avtomatika i telemekhanika, no. 4, 1966, 48-56

TOPIC TAGS: nonlinear automatic control system, statistic analysis, mathematic analysis, servosystem

ABSTRACT: An approximate statistical linearization method proposed by I. Ye. Kazakov is suggested for the analysis of follow-up failure conditions in nonlinear automatic control systems. This method, which is based on a study of a statistically linearized nonlinear system subjected to controlling and perturbing signals, has certain explicit features which lead to more accurate results than other methods employing the mathematical apparatus of the Markovian process theory, in addition to permitting an analysis of relative simplicity and practically acceptable accuracy of the conditions determining follow-up failure in a number of automatic systems differing in structure and parameters. Formulas and graphs are presented

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UDC: 62-501.32:519.25

L 43705-66

ACC NR: AP6023662

which relate follow-up failure conditions to system parameters and properties for a number of typical automatic control system structures. Computed data are shown to be in satisfactory agreement with experimentally derived findings. The use of this method makes it possible to achieve a comparative estimate of the noise-suppression characteristic of different systems based on a single objective criterion (i.e., the noise intensity value at which follow-up failure occurs) in addition to permitting systems synthesis with allowance for the constraints imposed by follow-up failure conditions. Orig. art. has: 6 figures and 49 formulas.

SUB CODE: 12, ¹³14/ SUBM DATE: 26Apr65/ ORIG REF: 005.

Card 2/2

YASHUKOV, V.P.

AUTHORS: Komar, A.P., and Yashukov, V.P.

120-6-17/36

TITLE: Instrument for Automatic Determination of Small Non-uniformities of Variable Magnetic Fields (Pribor dlya avtomaticheskogo opredeleniya malykh neodnorodnostey peremennykh magnitnykh poley)

PERIODICAL: Pribery i Tekhnika Eksperimenta, 1957, No.6, pp. 75 - 78 (USSR).

ABSTRACT: An instrument is described which permits observing on the screen of an oscillograph the curve of the non-uniformity of a magnetic field caused by slight differences in the amplitude or phases at various points of the gap of an electromagnet. Since in modern betatrons and synchrotrons the injection takes place at a low magnetic field potential in the gap of a magnet, the occurring deviations of the magnetic field potential are commensurate with the magnitude of the field potential at the instant of injection. Such non-uniformity of the magnetic field along the azimuth and the radius at the instant of injection leads to an increase in the amplitude of oscillations of the electrons and to falling of the electrons onto the walls of the chamber. In betatrons, non-uniformities in the magnetic field potential occur in the gap of the magnet and Card1/2 the accelerator at the instant of injection of electrons. The

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Instrument for Automatic Determination of Small Non-uniformities of Variable Magnetic Fields.

here described instrument was used repeatedly for determining the lead Δt in the gap of the electromagnet of the 100 MeV synchrotron of the Physico-technical Institute. Fig. 6 shows the non-uniformity curve ΔH and Δt as a function of φ obtained by ordinary methods (top graph) and the same curve recorded automatically by the here described instrument. Fitting of an automatic instrument facilitates considerably the detection of causes of reduction in the intensity of gamma-radiation of accelerators due to field distortions. Continuous measurement of ΔH permits rapid detection of the causes of the variations. The accuracy of the instrument is about 0.1 μ sec. Acknowledgments are made to S.N. Nikolayev for his advice on electronics problems. There are 6 figures and 2 non-Slavic references.

ASSOCIATION: Physico-technical Institute of the Ac.Sc. USSR.
(Fiziko-tekhnicheskoy Institut AN SSSR)

SUBMITTED: May 27, 1957.

AVAILABLE: Library of Congress.

Card 2/2

AUTHOR: Yashukov, V. P.

57-28-6-34/34

TITLE: The Multiple Capture of Electrons Into Betatron Conditions
(Mnogokratnyy zakhvat elektronov v betatronnyy rezhim)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28,
Nr 6, pp. 1363 - 1364 (USSR)

ABSTRACT: In his letter addressed to the editor the author speaks about the study of electron capture by repeated injections. When two momenta are injected into electrons in the course of a cycle of acceleration, an intensity was attained which was equal to the total intensity which can be obtained at equal conditions in the case of single momenta. It must be emphasized that in the case of an accurate adjustment according to the duration and intensity of the amplitude of momenta, the intensity of two momenta surpasses that of momenta imparted singly. Results are given in a table. They show the great importance of the space charge in the course of the process of electron capture into conditions of betatron acceleration. The application of repeated electron injections promises a considerable increase of the gamma radiation of betatrons and synchrotrons and offers

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The Multiple Capture of Electrons Into Betatron
Conditions

57-28-6-34/34

possibilities of developing a new method of studying electron capture into betatron conditions. Work is being continued along these lines. There are 1 figure and 1 table.

ASSOCIATION: Leningradskiy fiziko-tokhnicheskii institut AN SSSR (Leningrad
Institute of Physics and Technology, AS USSR)

SUBMITTED: June 13, 1957

1. Electron capture 2. Betatrons--Performance

Card 2/2

USCOMM-DC-60020

YASHUKOV, V. P., Cand Tech Sci -- (diss) "Investigation of the initial system of acceleration in electron accelerators." Leningrad, 1960. 11 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Polytechnic Inst im M. I. Kalinin); 180 copies; free; (KL, 25-60, 136)

21.2100, 21.2200

77251
SOV/89-8-2-16/30

AUTHOR: Yashukov, V. P.

TITLE: Electron Injection in Betatron. Letter to the Editor

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 2, pp 150-151 (USSR)

ABSTRACT: No theory exists to date which would describe the process of trapping electrons in the betatron cycle, and there is no significant progress in the increase of γ -ray intensities produced by betatrons. Using the 100-mev synchrotron with a betatron starter of the Leningrad Physico-Technical Institute (Leningradskiy fiziko-tekhnicheskiy institut), the author investigated the influence of the shape of the impulse of injection on the maximum intensity of γ -rays with an otherwise optimum adjustment of the machine. He worked with a square wave generator of pulses lasting 2-10 μ sec, a sine wave generator with a range of 1.2-12 μ sec, a generator of impulses lasting 2 μ sec, and with variable front in the trapping region (front obtained by superposing

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Electron Injection in Betatron.
Letter to the Editor

77251
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a square wave and an almost sinusoidal impulse] and generator of impulse packets lasting approximately 8 μ sec and having up to three impulses per packet. Injection potential was 30 kv; γ -radiation was measured using the USSR "Cactus" device. An ionization chamber 1 liter in volume and located 2 m from the target was used as a pickup. The author found that in the case of single impulse injections the variations in shape of the impulse did not appreciably affect the maximum intensity which was in all cases due to the maximum of the front-to-shelf angle region of the square wave impulse. The author noted that the emitted current must be adjusted with respect to the length of the injection impulse (e.g., for a 12 μ sec injection, 100 μ a; for 1.2 μ sec, 28 μ a). Frequency of repeated impulses was 50 c/s. The author used the oscillogram of the current during trapping to discover that the optimum number of charges during one cycle is 10-25% of the theoretical limit. He therefore tested a repeated injection method by producing three

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Electron Injection in Betatron.
Letter to the Editor

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injections during one working cycle. He increased the constant field excitation to reduce the steepness of the rise of the magnetic field during injections. When working with one impulse of a 32-kv injection, the maximum γ -radiation intensity was equal to 25 relative units; while when working with three impulses during one cycle, with 24, 28, and 32 kv of potential, respectively, he obtained γ -radiation for each of the three one-cycle injections. The respective intensities were 10, 15, and 25 relative units, or an overall intensity of 48 relative units, which was more than twice the amount under the single-injection procedure. Time intervals between impulses could be changed in an arbitrary manner without affecting much the γ -radiation intensities. This fact showed a fast (time $< 1 \mu$ sec) decrease in particle oscillation amplitudes due to their collective interactions. Taking into account the linear increase of γ -radiation intensity with the increase of injection potentials, the author recommended the beginning of the injection at such a potential that would produce a

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Electron Injection in Betatron.
Letter to the Editor

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γ -radiation intensity equal to 20% of its intensity at the possible peak of the injection potential. Assuming, in case of multiple injections, a further validity of the linear superposition of γ -radiation intensities, one may expect, using multiple injections, a 4- to 6-fold increase of betatron γ -radiation intensities. With slower variations of the magnetic field, or by using constant magnetic fields, this increase could be pushed still further. There are 9 references, 5 Soviet, 4 U.S. The U.S. references are: J. Lawson, Nucleonics, 10, Nr 11, 61 (1952); R. Wideröe, J. Appl. Phys., 22, 362 (1951); D. Kerst, G. Adams, H. Koch, C. Robinson, Phys. Rev., 78, 297 (1950); E. Greanias, E. Wukasch, Phys. Rev., 70, 797 (1946).

SUBMITTED: March 16, 1959

Card 4/4

GORSHKOV, A.I.; IGNAT'YEV, V.I.; YASHUKOV, V.P.

Instrument for measuring the vertical component of the electrostatic field. Izv. AN SSSR. Fiz. atm. i okeana 1 no.10:1099-1100 0 '65.
(MIRA 18:10)

1. Fiziko-tekhnicheskiy institut AN SSSR.

L 40926-66 EWT(1)/FCC GWI

ACC NR: AP6006134

SOURCE CODE: UR/0362/65/001/010/1099/1100

AUTHOR: Gorshkov, A. I.; Ignat'yev, V. I.; Yashukov, V. P.

ORG: Physico-technical Institute, Academy of Sciences SSSR (Akademiya nauk SSSR, Fiziko-tekhnicheskiy institut)

TITLE: Instrument for measuring the vertical component of an electrostatic field *9M*

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery okeana, v. 1, no. 10, 1965, 1099-1100

TOPIC TAGS: electrostatic field, atmospheric physics, electric measuring instrument

ABSTRACT: The authors describe an electrostatic fluxmeter for measuring the electrostatic field in the atmosphere, which consists of an external sensor and cathode followers, a radio unit, a recorder, and plate and filament rectifiers. The measuring and shielding four-section plates are chrome plated and polished. The reference voltage for the synchronous detector is produced by an auxiliary electrostatic generator. The shielding plates of both generators are rotated at 3000 rpm. The radio unit consists of a three-state amplifier of the main signal, a reference voltage amplifier, and a synchronous detector. The instrument measures the field within 210 V/m over the entire scale at a minimal amplification factor and 57 V/m at a maximal amplification factor. The accuracy of the measurements is ± 1 V/m. The inertia of the flux-

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UDC: 551.508.94

L 40926-65

ACC NR: AP6006134

meter permits recording, practically without distortion, the magnitude and front of variations of the electrostatic field with a duration of 1 sec and amplitude of 10 V/m. The electrostatic fluxmeter was used for prolonged measurements of the field under good weather conditions in 1963-1964. Orig. art. has: 3 figures.

SUB CODE: 08,14/ SUBM DATE: 08Feb65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 *11/68*

10930-65 EMT(U)/FCC ON

ACC NR: AP6011375

SOURCE CODE: UR/0362/66/002/003/0316/0319

AUTHOR: Gorshkov, A. I.; Ignat'yev, V. I.; Lavrent'yev, G. Ya.; Stefanovskiy, A. M.;
Yashukov, V. P.

ORG: none

TITLE: Effect of meteor streams on the electrical field of the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 3, 1966, 316-319

TOPIC TAGS: meteor, atmospheric electricity, electric field

ABSTRACT: Data on measurements of the electrical field of the atmosphere enabled the authors to study the effect of meteor streams on this field. The results of measurements of nine geophysical stations were used. The data on the electrical field of the atmosphere were analyzed by calculating the mean diurnal and mean monthly values of the field from the data of each geophysical station. These values were averaged for the three years of observations (1957-1959). Then the variations of the field, i.e., the differences between the mean diurnal and mean monthly values, were calculated. The calculated values and the change in the number of meteors for all three streams (Perseid, Geminid, and Quadrantid) were compared. The comparison readily showed that the Perseid meteors did not affect the electrical field of the atmosphere. An

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ACC NR: AP6011375

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increase of the field during the passage of meteors was noted only for the more powerful streams, such as Geminid and Quadrantid. However, the dispersion of the data did not permit considering this conclusion sufficiently reliable. Therefore the correlation method of analyzing the experimental data was used to elicit the assumed relation between the changes of the electrical field and the number of meteors. The confidence interval was also calculated for each stream. The correlation coefficient-stream intensity curve, for which the 10-min value of the number of meteors was taken, showed that for the most powerful streams the correlation coefficients had essentially positive value. Thus, statistical analysis of the results of the measurements showed with sufficient reliability that powerful meteor streams affect the electrical field of the atmosphere at the level of the earth. A detailed study of the relationship between these two phenomena and an explanation of the mechanism of this relation is needed for the final solution of this problem. Orig. art. has: 1 table and 3 figures.

SUB CODE: 03,04/ SUBM DATE: 02Jul65/ ORIG REF: 006/ OTH REF: 000

Card 2/2

YASHUKOVA, I.M.

Prebreakdown state of selenium rectifiers at various
temperatures. Izv. vys. ucheb. zav.; fiz. no.5:18-22
'62. (MIRA 15:12)

1. Leningradskiy politehnicheskii institut imeni
M.I. Kalinina.
(Electric current rectifiers)

YASHUKOVA, I.M.

Method for pulse measurements of the resistance and capacitance
of semiconductors and semiconductor rectifiers. Nauch.tekh.
inform.biul.LPI no.12:20-28 '58. (MIRA 13:2)
(Semiconductors)

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SOV/181- 1-8-5/32

9(4)

AUTHORS:

Nasledov, D. N., Yashukova, I. M.

TITLE:

Investigation of Selenium Rectifiers in Pulsed Operation

PERIODICAL:

Fizika tverdogo tela, 1959, Vol 1, Nr 8, pp 1188-1192 (USSR)

ABSTRACT:

The present paper is intended to explain the reason for the conductivity increase of selenium rectifiers in the backward direction (thermal or electric effect) and to investigate the behavior of selenium rectifiers in the case of high backward voltages. In order to remove the effects of joulean heat, the rectifiers for the first time were investigated by means of the pulse method used by V. M. Tuchkevich (Refs 6,7). The current pulse or the voltage pulse, respectively, were measured with EO-53 type or 25-I type oscilloscopes, respectively. The duration of voltage increase at the sample (rectifier) is determined by way of the equivalent resistance of the entire circuit and the capacitance of the rectifier. The measurements were made with commercial selenium rectifiers. The voltampere characteristics of pulsed and of static conditions do not differ as much as expected. In the case of 5 mm thick copper-copper-oxide rectifiers these two characteristics differ considerably.

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SOV/181-1 -8-5/32

Investigation of Selenium Rectifiers in Pulsed Operation

Thus in this case heat effects are removed when measurements are carried out at pulsed operation. In selenium rectifiers this effect is compensated by the shape of the sample. The backward resistance of the selenium rectifiers decreases with increasing voltage and from 45 to 50 v resistance variation follows Zener's law. This holds for rectifiers with large and with small area. Together with the measurements of the selenium rectifier voltampere characteristic also their capacitance was measured from the time of voltage increase during the pulse. The backward capacitance of a rectifier decreases with increasing voltage to a certain limit and remains constant afterwards. The voltage at which capacitance stops decreasing agrees with that voltage at which Zener's law begins to apply. If the thickness d of the blocking layer is known then the electric field strength in this layer can be determined. Zener's law begins to apply at electric field strengths of the order 10^5 v/cm. The shift in the inverse rectifier characteristic for pulsed operation shifts a little towards higher voltages. The inverse rectifier resistivity decreases with increasing voltage due to a transition (under the influence of the field of the electrons)

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Investigation of Selenium Rectifiers in Pulsed Operation SOV/181-1-8-5/32

from the filled up zone into the zone of conductivity. The voltage dependence of the inverse resistivity of the rectifier in this case follows Zener's law. This effect in particular seems to cause breakdown of the rectifiers. There are 9 figures and 9 references, 8 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut AN SSSR
(Leningrad Institute of Physics and Technology of the AS USSR)

SUBMITTED: August 1, 1958 4

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42203

S/139/62/000/005/001/015

E073/E335

9,2150

AUTHOR: Yashukova, I.M.

TITLE: Investigation of the pre-breakdown state of selenium rectifiers at various temperatures

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 5, 1962, 18 - 22

TEXT: The reverse resistance of a rectifier was determined by the pulse method (to eliminate the influence of a temperature rise due to the passing current) by measuring oscillographically the pulse voltage applied as well as the pulse current passing through the rectifier. Separate measurements of the resistance of the selenium itself enabled determining the resistance of the barrier layer. Two types of selenium-rectifier discs, 7.2 mm in diameter, from current production were used in the investigations: type A - selenium-coated aluminium-base with the barrier layer between the Se and the cathode alloy; type T - with the barrier layer between the base and the selenium using as the upper electrode a bismuth-coated aluminium foil. The measurements were made at a constant temperature with a varying reverse voltage (up to 100 V) as well
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Investigation of

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E073/E335

as with a constant reverse voltage and a temperature varying between -70 and $+100^{\circ}\text{C}$. The increase in conductivity as a function of the reverse voltage at various temperatures obeys the Zener electrostatic ionization law. For T-type rectifiers the width of the barrier zone changed slightly at low temperatures (0.77 eV at -40°C as compared with 0.936 eV at 19°C), while for the type A rectifiers this value hardly changed at all with temperature. The critical field strength E_{cr} was independent of temperature for the rectifiers type A and slightly dependent on temperature for type T. The obtained values are in good agreement with those predicted by theory. The absence of a temperature-dependence in the Zener formula relating to the change in the conductivity of selenium rectifiers with increasing voltage as well as the absence of a temperature-dependence of E_{cr} lead to the assumption that in both types of rectifiers electrostatic ionization influences the pre-breakdown state and leads to a breakdown. There are 8 figs and 2 tables.

ASSOCIATION: Leningradskiy politekhnicheskii institut imeni M.I. Kalinina (Leningrad Polytechnical Institute imeni M.I. Kalinin)

SUBMITTED: July 14, 1961
Card 2/2

S/275/63/000/001/019/035
D413/D308

AUTHOR: Yashukova, I. M.,

TITLE: Temperature-dependence of reverse currents in selenium rectifiers operating under pulsed conditions

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 18-19, abstract 1B 127 (In collection: Fizika, L., 1962, 39-42)

TEXT: A study has been made of the reverse current of selenium rectifiers of types ABC (AVS) and TBC (TVS) as a function of voltage in the pre-breakdown state at various temperatures (from -70 to -100°C). The resistance of the selenium and the capacitance of the rectifier were measured, and values were calculated for the thickness of the barrier layer, the electric field intensity E_{cr} (at which the effect of electrostatic ionization starts to act), and the width of the forbidden zone. The relation of current and electrical conductivity of the rectifier to inverse voltage varies

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Temperature dependence of ...

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D413/D308

little with temperature. The conclusion is drawn that in the rectifiers tested the electrostatic ionization effect acts in the pre-breakdown state, and this leads to breakdown. 4 references. [Abstracter's note: Complete translation.]

Card 2/2

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ACC NR: AT6027143 (A)

SOURCE CODE: UR/0000/65/000,000/0144/0148
26
B+1

AUTHOR: Avgustinik, A. I.; Petrova, V. Z.; Yashukova, T. I.

ORG: Chelyabinsk Polytechnic Institute (Chelyabinskiy politekhnicheskiy institut)

TITLE: Study of the physicochemical properties of glasses based on readjusted slags containing an admixture of Na_2SiF_6 in the course of crystallization

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 144-148

TOPIC TAGS: slag, glass property, catalyzed crystallization

ABSTRACT: The object of the study was to clarify the nature of the change in physico-mechanical properties in the course of crystallization¹ of silicate glasses² made from Southern Ural slags. The chemical composition of the slags was readjusted in order to obtain glass whose temperature of crystal growth would be above the temperature of formation of nuclei. Na_2SiF_6 was used as the crystallization catalyst, and ultrasonic analysis (speed of travel of longitudinal and transverse waves) was used to determine the degree of crystallization and the optimum crystallization conditions. The data showed that the properties of the slag brick improved as the crystallization progressed. The microcrystallized slag brick obtained had high physicochemical and chemical properties: strength, hardness, wear resistance, density, chemical stability

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ACC NR: AT6027143

and low brittleness. The physicommechanical properties of the pyroceramic materials obtained were much better than those of the original glasses, and make them suitable for use as high-strength construction materials. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 25Mar63/ ORIG REF: 005/ OTH REF: 003

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2/2

VOLKOV, B.A.; GOLOVNEV, V.M.; YASHUMOV, V.N.; SAMBUK, F.I., red.;
SHIPKO, A.I., red.; MOROZOVA, Ye., red.; VARENIKOVA, V.,
tekhn. red.; STEPANOVA, N., tekhn. red.

[Soviet worker's manual] Spravochnik sovetskogo rabotnika.
Minsk, Gos.izd-vo BSSR, 1962. 657 p. (MIRA 16:8)
(Labor laws and legislation--Handbooks, manuals, etc.)

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
YASHUMOVA, Z.A.																			
Capacity differential manometer, A. Sine'nikov and Z. Yashumova, J. Tech. Phys. (U.S.S.R.) 1, 240-6(1981).—Aluminum, rubber and brass membrane manometer as described.																			
J. P. Rathmann																			
ASR-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND ORDER																			
3RD AND 4TH ORDER																			

The image shows a microfiche card with a document snippet. The card has a grid of holes along its edges. The document text is as follows:

YASHUMOVA, Z.A.
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Heat-protecting metal garments. Z. A. Yashumova
(Leningrad Inst. Labor Hyg. Industrial Diseases, Min-
istry Pub. Health, R.S.F.S.R.). *Gigiena i Sanit.* 11,
No. 4, 15-19(1940)—Tests were made on garments of Al
foil, tin, asbestos, aluminized cloth, sacking cloth, civilian
cloth, and army coat cloth. Best protection from radiant
heat was afforded by linen cloth covered with overlapping
shields (30-50 sq. mm.) of tin plates. C. S. Shapiro

COMMON ELEMENTS
OPEN
MATERIAL INDEX
ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION
E-Z
FROM SOURCE
RELIST ONE ONE 151
GROUP
SECOND MAP ONE JOE
RELIST ONE
U
C
D
W
I
R
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K
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A

YASHUMOVA, Z.A.

Extent of radiation in factory plants with extensive heat. Gig. sanit.,
Moskva no. 2:24-27 Feb 1953. (CIML 24:2)

1. Of Leningrad Scientific-Research Institute of Labor Hygiene and
Occupational Diseases.

MALYSHEV, M.F., kand.tekhn.nauk; YASHUNIN, P.V., inzh.

"Alumina production" by S. I. Kuznetsov. Reviewed by M.F.
Malyshev, P.V. Iashunin. TSvet.met. 31 no.12:85-89 D '58.
(MIRA 11:12)

(Alumina) (Kuznetsov, S.I.)

PANASKO, G.A.; YASHUNIN, P.V.

Calculation of the system $\text{Na}_2\text{O} - \text{Al}_2\text{O}_3 - \text{H}_2\text{O}$. Zhur. prikl.
khim. 37 no.2:285-289 F '64. (MIRA 17:9)

PONOMAREV, V.D.; MALYSHEV, M.F.; YASHUNIN, P.Ya.; KAPRALOV, P.V.

Leaching of bauxites by high-modulus alkali solutions. Izv.AN
Kazakh.SSR.Ser.met., obog.i ogneup. no.2:27-32 '61. (MIRA 14:8)
(Leaching) (Bauxite)

YASHUNIN, V.V., inzh.

Flexible containers for the transportation of petroleum products
and chemicals (from foreign journals). Sudostroenie 25 no.8:59-62
Ag '59. (MIRA 13:2)
(Petroleum products--Transportation) (Containers)

1. YASHUNOV, N.; OVSIYANNIKOV, A.
2. USSR (600)
4. Clothing Industry
7. Improve the clothing trade, N. Yashunov, A. Ovsyannikov, Sov. torg. no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

YASHUNSKAYA, A. G.

Cand. Tech. Sci.

Dissertation: "Investigation of Dialdehyde-Cellulose and Products of its Transformation."
Moscow Textile Inst, 22 Apr 47.

SO: Vechernyaya Moskva, Apr, 1947 (Project #17836)